Jan. 15, 1935. J. D. GARRETT 1,988,310

CONNECTER SCREW

Filed Feb. 18, 1932

Fig. 1.

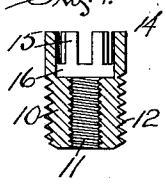


Fig. 2.

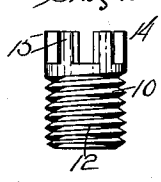


Fig. 6.

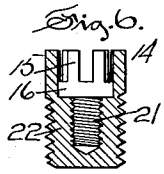


Fig. 3.

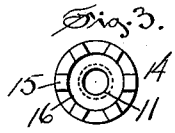


Fig. 4.

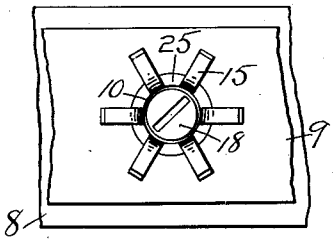


Fig. 8.

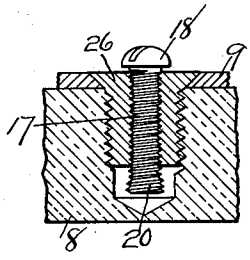


Fig. 9.

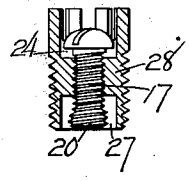


Fig. 5.

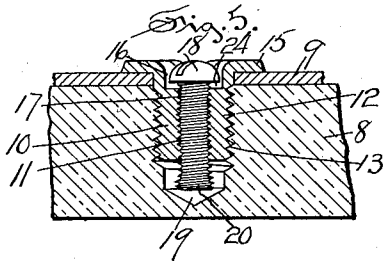
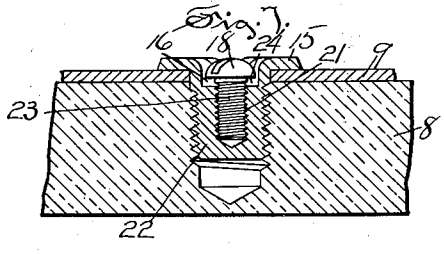


Fig. 7.



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CONNECTER SCREW

John D. Garrett, West Hartford, Conn.

Application February 18, 1932, Serial No. 593,731

6 Claims. (Cl. 173—259)

My invention relates to the class of devices that are employed for the purpose of securing electrical conductors, such as binding posts, terminals and the like, in place, and an object of my invention, among others, is the provision of a device of this type that shall be simple in construction, efficient in operation, and one that may be employed as a means for securing a plurality of conductors in place.

One form of a connecter screw embodying my invention, and in the construction and use of which the objects herein set out, as well as others, may be attained is illustrated in the accompanying drawing, in which—

Figure 1 is a view in central lengthwise section through my improved connecter screw.

Figure 2 is a side view of the same.

Figure 3 is an end view looking at the head of the screw.

Figure 4 is a view illustrating a manner of use of my improved screw.

Figure 5 is a view in lengthwise central section through my improved screw and through a fixture to which the screw is applied and illustrating its manner of use.

Figure 6 is a view in lengthwise central section through my improved screw of a little different form.

Figure 7 is a sectional view illustrating the manner of use of this last mentioned screw.

Figure 8 is a detail view in section through a little different form of construction of the screw illustrating its manner of use in securing parts together.

Figure 9 is a view in section through my improved screw illustrating a little different manner of construction.

Although my improved screw is not limited in the use to which it may be put, yet, as it is particularly applicable for use in attaching electrical devices, as conductors, terminals, and the like, to bases or supports, I have selected such a use for the purpose of illustrating my invention herein. In the drawing the numeral 8 denotes a base, usually composed of insulating material, as bakelite, or other similar substance, and which may be the base of a switch or other electrical structure used for supporting electrical conductors or other devices. The numeral 9 denotes a conductor or other electrical device which is secured to the base and which may constitute a portion of the path for an electrical current. As an illustration, this conductor 9 may be one of the terminals operating in connection with a so-called electrical switch, and my improved screw finds extremely convenient use not only as a means for securing the conductor to the base 8, but also as a means for attaching another conductor, as a wire, to the conductor 9.

To this end my improved screw 10 has a threaded opening 11 extending inwardly from one end along the center thereof, this opening being threaded and an exterior thread 12 being formed on the outer surface of the screw to engage within an opening 13 in the base 8, in a frequent manner of use the screw 10 being employed to cut the thread for its reception in the opening 12 that is ordinarily formed as a smooth bore.

A head 14 is formed on the screw 10, and this head may be of different constructions. In the device herein shown, which satisfactorily answers my purpose, a number of prongs 15 are formed by slitting the walls of a flange created by a counterbored opening 16 inwardly nearly to the bottom of said opening.

The threaded opening 11 is for the purpose of receiving a binding screw 17 engaged within said opening 11, the head 18 of the binding screw being employed for the purpose of securing a wire in a manner that will be readily understood by those skilled in the art. In this manner of use of the device the screw 17 may be made somewhat longer than the screw 10 so that the former will project beyond the inner end of the screw 10, as into a recess 19 in the base 8, such recess being located inwardly of the thread 12. The screw 17 may be enlarged as at 20 by peening or otherwise upsetting the end of the screw to prevent its removal from the screw 10, and in a manner that will be readily understood.

In that form of the device illustrated in Figures 6 and 7 the structure is substantially the same as hereinbefore described with the exception that the threaded opening 21 in the screw 22 does not extend through the latter, and consequently the screw 23 used for binding purposes is shorter than the binding screw 17.

It will be observed that my improved connecter screw serves the double purpose for attaching the conductor 9 to the base 8 and also to receive the binding screw 17 for attachment of a wire or other conductor, thereby placing all of the parts in electrical connection one with another.

The head 18 of the screw is seated within the recess of the counterbore 16 to such an extent that a wire encircling the screw underneath the head in the space 24 is prevented from being crowded out from underneath the head, the wire passing in to the space 24 through one of the

grooves 25 created between the prongs 15. With this construction care is not required in attaching a wire by means of the screw to prevent such wire from being squeezed out from underneath the head.

In the form of the device shown in Figure 8 the screw is provided with a head 26 with a beveled under edge commonly found in wood screws, tire bolts, and the like. In this form of the device the under side of the head 18 may be used flush with the outer surface of the conductor 9, as shown in Figure 8.

In that form of the structure shown in Figure 9 a recess 27 is formed in the end of the screw 28, the screw otherwise being of the same construction as hereinbefore described.

In this form of the device the end of the binding screw 17 is located within the recess 27, and the thread on the end of such screw may be "staked" or otherwise mutilated to prevent it from being readily turned out of its socket in the screw 28.

I claim:

1. A connecter device having means for attachment to a base, the head of said device having a recess to receive the head of a screw, said head being slotted to create prongs to enable it to be expanded and overturned to create a flange, said slots being of a width to receive a wire extended into said recess.

2. A connecter device having an exterior thread and an interior threaded opening terminating at its outer end in a recess to receive the head of a binding screw, said device also having a head comprising an annular flange extending from the body of said connecter device and slotted for expansion of the head of said device to secure an article to a supporting base, said recess being located in said head and the slots being of a width to receive a wire extended into said recess.

3. A connecter device having an exterior thread, an interior threaded opening and a counterbored opening forming an annular flange, said flange being slotted to a depth spaced above the bottom of said counterbore to provide prongs to be outturned to secure an article to a supporting base and to provide a recess to receive a wire extended into said recess.

4. A connecter device having an exterior thread and an interior threaded opening, a head to secure an article to a supporting base, and a solid headed binding screw engaged with said threaded opening and projecting therethrough and having its projecting end opposite its head upset to prevent removal of said screw from said opening.

5. A connecter device comprising a screw having a threaded opening therethrough and enlarged recesses at opposite ends of said opening into which said opening extends and a screw having enlarged ends located in said openings.

6. A connecter device comprising a screw having a central threaded opening extending therethrough and a recess in its inner end into which said opening extends, and a solid binding screw located in said threaded opening with its inner end extending into said recess and enlarged to prevent removal of said binding screw.

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